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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/941,725      | 08/30/2001  | Masahiko Amano       | 381AS/50354         | 7142             |

7590 04/01/2003

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Washington, DC 20005

[REDACTED] EXAMINER

RILEY, SHAWN

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2838

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 09/941,725             | AMANO ET AL.        |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Shawn Riley            | 2838                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 30 August 2001 filing.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-2, 5, and 8 is/are rejected.
- 7) Claim(s) 3,4,6 and 7 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_ .
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_ .
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_ .

## **DETAILED ACTION**

### ***Drawings***

1. The drawing(s) is(are) objected to because they fail to label (figure(s)1, 3, 4 and 5) what the element boxes 1 (i.e., an engine), 7/7a (load) and 2 (motor/generator as opposed to M G) are. Without some indication as to the content of the boxes (or preferably ansi symbols of the actual elements) it is not clear as to what the elements are and they are not explanatory to a reader as a quick method of determining the general background of the invention.

See MPEP 608.02 subparagraph (o) -- **Legends**

Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible.

### ***Specification***

2. The disclosure is objected to because of the following informalities: spelling of 'super' at page 7 line 15. Appropriate correction is required.

3. Applicant(s) is(are) reminded of the proper language and format for an abstract of the disclosure.

4. The form and legal phraseology often used in patent claims, such as "comprises", "means", and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. Correction is required. See MPEP § 608.01(b).

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. E.g., Vehicle motor-generator supply with super capacitor.

***Claim Rejections - 35 U.S.C. § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5 and 8 are rejected under 35 U.S.C. §102(b) as being anticipated by Suzuki et al. (U.S. Patent 5,513,718). Suzuki et al. shows<sup>1</sup>, (in, e.g., the(ir) figure(s) 4 and 9and corresponding disclosure)

As to claim 1;

1. Power supply equipment for a motor vehicle, comprising a motor generator (element 2 is described at column 10 lines, e.g., 32-49), an inverter (4) for driving said motor

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<sup>1</sup> Note claims will be addressed individually and the material in parentheses are the examiner's annotated comments. Further unless needed for clarity reasons, recited limitation(s), will be annotated only upon their first occurrence. Annotated claims begin with the phrase "As to claim". Claims that are not annotated are seen as having already had the invention(s) addressed previously in an annotated claim. Bolded words/phrases indicate rejected material based 112 paragraph rejections. Underlined words/phrases indicate objected to material.

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generator (see, e.g., column 10 lines 50-60), a battery (22) and a capacitor (20) of an electrical double layer, wherein said capacitor is directly connected to a DC side of said inverter and said battery is connected in parallel with said capacitor via first switching (19 in figure 9 or 21 in figure 4) means.

As to claim 2;

2. The power supply equipment for a motor vehicle according to claim 1, further comprising: control means (5) for turning off said first switching means in the start-up (The control modes of inverter control circuit 5 include a starting mode wherein, when internal combustion engine 1 is being started, energy stored in electrostatic capacitive circuit 20 is given to squirrel-cage polyphase induction machine 2 as an AC current via inverter circuit 4, and squirrel-cage polyphase induction machine 2 is made to operate as an electric motor; a deceleration mode wherein, when the vehicle is being braked, squirrel-cage polyphase induction machine 2 is made to operate as an electric generator, and the output AC current of squirrel-cage polyphase induction machine 2 is supplied to electrostatic capacitive circuit 20 as a charging current via inverter circuit 4) of an engine (1) to separate said battery from said capacitor and for turning on said first switching means after the start-up of the engine to connect said battery to said capacitor.

As to claim 5;

5. The power supply equipment for a motor vehicle according to claim 1, further comprising: a second capacitor (7) connected in parallel with said first-mentioned

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capacitor between said inverter and said capacitor for eliminating high frequency ripples (by definition what capacitors do).

8. Power supply equipment for a motor vehicle, comprising a motor generator, an inverter for driving said motor generator, a battery and a capacitor of an electrical double layer, wherein said battery has a plurality of different (higher and lower) voltage terminals; said capacitor being directly connected to a DC side of said inverter; said capacitor being connected on its higher voltage side to a higher voltage terminal of said battery via first switching means; and said capacitor being connected on its higher voltage side to a lower voltage terminal of said battery via second switching means.

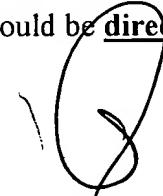
#### *Allowable Subject Matter*

3. Claims 3-4 and 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. As allowable subject matter has been indicated, applicant's response must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 C.F.R. § 1.111(b) and section 707.07(a) of the M.P.E.P.

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 703.305.3487. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Mike Sherry who can be reached at 703.308.1680. Any inquiry about a case's location, retrieval of a case, receipt of an amendment into a case or sending in correspondence to a case via fax should be directed to 2800's Customer Service Center at 703.306.3329. The fax phone number for this Group is 703.305.7731 or 7732. Any inquiry of a general nature of this application should be directed to the Group receptionist whose telephone number is 703.308.1782.



SHAWN RILEY  
PRIMARY EXAMINER